

Wyoming Nutrient Work Group

Background: Nutrients (nitrogen and phosphorus), in appropriate amounts, are essential to aquatic systems. Excessive nutrients or nutrient pollution, however, can result in excessive growth of vegetation (i.e. aquatic plants and algae) that can lead to oxygen depletion, high pH, fish kills, and general degradation of aquatic resources. Drinking water supplies with excessive nutrients can require costly treatment, while surface waters with nutrient pollution can impact use of the water for recreation, livestock and wildlife. National water quality summaries consistently identify excessive nutrients as one of the leading causes of impairments of the nation's waters. In Wyoming, nutrients can be important stressors that influence biological condition in some sub-basins, though channel instability and sediment are typically the most common stressors that influence biological condition throughout the state.

Purpose: The purpose of the Wyoming Nutrient Work Group (WNWG) is to assist the Wyoming Department of Environmental Quality address nutrient pollution in Wyoming through development and implementation of numeric nutrient criteria and a nutrient reduction strategy.

Members: The WNWG is comprised of a comprehensive set of stakeholders representing agriculture, industry, municipalities, water and wastewater management, land and resource management agencies, and the environment.

Decision Making: The WNWG is comprised of organizations and individuals who want to actively participate in efforts to address nutrient pollution in Wyoming. Since the work group will only be effective if members are engaged in discussions and meetings, provide timely and constructive feedback on proposals and products, members who cannot participate will be asked to recommend another person or organization to represent their interests.

Frequency of Meetings: The WNWG will convene approximately quarterly, or as WDEQ has new information or materials for the group to consider. The work group may be sub-divided into committees responsible for various aspects of criteria development and implementation or reduction strategy development and implementation. Potential sub-committees include: Agriculture, Drinking Water Protection, Numeric Nutrient Criteria Development, Criteria Implementation, Wastewater, Stormwater, etc. Sub-committees may require more frequent meetings.

Numeric Nutrient Criteria Development: Since 2005, WDEQ/WQD has been collecting and analyzing nutrient samples at low enough concentrations to assist with nutrient criteria development. During 2013, WDEQ began data collection on lakes and reservoirs specifically for numeric nutrient criteria development. WDEQ/WQD has also started updating the Wyoming Nutrient Criteria Development Plan. The WNWG will be asked to provide input on the edited plan in 2014 before the plan is finalized. WDEQ/WQD will routinely update the WNWG on progress toward numeric nutrient criteria and ask for input on waterbody prioritization, general approaches to criteria development, etc.

Nutrient Reduction Strategy: The Nutrient Work Group will evaluate EPA's Framework for Managing Nitrogen and Phosphorus Pollution ([March 2011](http://www2.epa.gov/sites/production/files/documents/memo_nitrogen_framework.pdf)¹) to determine how to develop a nutrient reduction plan specific to Wyoming. EPA's framework recommends that states: prioritize watersheds on a statewide basis for nitrogen and phosphorus loading reductions; set watershed load reduction goals based upon the best available information; ensure effectiveness of point source permits in targeted/priority sub-watersheds; identify and implement agricultural conservation practices in targeted areas; identify and implement improvements to storm water systems, septic, lawn fertilizers and detergents; verify and document load reductions; and report implementation activities annually and load reductions biannually.

¹ Framework: http://www2.epa.gov/sites/production/files/documents/memo_nitrogen_framework.pdf